

Keevitajate atesteerimine. Sulakeevitus. Osa 1: Terased

Qualification test of welders - Fusion welding - Part 1: Steels

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Qualification test of welders - Fusion welding - Part 1: Steels

Epreuve de qualification des soudeurs - Soudage par
fusion - Partie 1 : Aciers

Prüfung von Schweißern - Schmelzschweißen - Teil 1:
Stähle

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Foreword

This document (EN 287-1:2011) has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 287-1:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The ability of a welder to follow verbal or written instructions and verification of a person's skills is an important factors in ensuring the quality of the welded product.

The testing of a welder's skill in accordance with this standard depends on welding techniques and conditions used in which uniform rules are complied with and standard test pieces are used.

The principle of this standard is that a qualification test qualifies the welder not only for the conditions used in the test, but also for all joints which are considered easier to weld on the presumption that the welder has received a specific training and/or has industrial practice within the range of qualification.

The qualification test can be used to qualify a welding procedure and a welder provided that all the relevant requirements, e.g. test piece dimensions and testing requirements are satisfied (see EN ISO 15614-1).

At the end of its period of validity, the existing and valid qualification testing of welders in accordance with the requirement of the previous edition of this standard may be revalidated according to the previous edition. Alternatively, the range of qualification may be updated in accordance with this edition. All new qualifications and re-qualifications shall be in accordance with this edition.

1 Scope

This European Standard defines the qualification testing of welders for the fusion welding of steels.

It provides a set of technical rules for a systematic qualification test of the welder, and enables such qualifications to be uniformly accepted independently of the type of product, location and examiner/examining body.

When qualifying welders, the emphasis is placed on the welder's ability to manually manipulate the electrode / welding torch / welding blowpipe and thereby producing a weld of acceptable quality.

The welding processes referred to in this standard include those fusion-welding processes which are designated as manual or partly mechanized welding. It does not cover fully mechanized and automated welding processes (see EN 1418).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1320:1996, *Destructive tests on welds in metallic materials — Fracture test*

EN 1435:1997, *Non-destructive examination of welds — Radiographic examination of welded joints*

EN ISO 4063:2009, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:2009)*

EN ISO 5173:2010, *Destructive tests on welds in metallic materials — Bend tests (ISO 5173:2009)*

EN ISO 5817:2007, *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections (ISO 5817:2003, corrected version:2005, including Technical Corrigendum 1:2006)*

EN ISO 6947, *Welding and allied processes — Welding positions (ISO 6947:2011)*

CEN ISO/TR 15608, *Welding — Guidelines for a metallic materials grouping system (ISO/TR 15608:2005)*

EN ISO 15609-1:2004, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding (ISO 15609-1:2004)*

EN ISO 15609-2:2001, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 2: Gas welding (ISO 15609-2:2001)*

EN ISO 17637, *Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2003)*

ISO 857-1:1998, *Welding and allied processes — Vocabulary — Part 1: Metal welding processes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 welder

person who holds and manipulates the electrode holder, welding torch or blowpipe by hand